



## THE UNIVERSITY OF BRITISH COLUMBIA

### SPPH 581H: Social Media in Health & Medicine (3 Credits)

**Thursday September 8<sup>th</sup> (Final version) – Due to lower than anticipated enrollment (and changes in social media since the course syllabus was last updated), this document was amended. Note: newer literature is now included in most weeks. DMG)**

**Instructor:** Dean Giustini, various guest lecturers

**General course description:**

**SPPH 581H: *Social media in health & medicine*** introduces graduate students in public health and health services research (HSR) to the technologies and research associated with social media in health and medicine. Social media will be examined as a catalyst for change in health care and how health practitioners, researchers and consumers find, share and create health information in the 21<sup>st</sup> century. In the health and medical fields, information practices and workflows are changing as a result of social media, and will continue to have an impact well into the future.

**Intended students:**

The course was designed with graduate-level students in the health and human service disciplines in mind as well as for practicing health and human service professionals. Upper-level undergraduates may enroll in the course subject to the policy and requirements of the UBC Faculty of Graduate Studies (see <http://www.grad.ubc.ca/current-students/managing-your-program/undergraduate-students> and <http://www.grad.ubc.ca/forms/enrolment-undergraduate-students-graduate-course>).

Specifically, this course may interest the following learners:

- Masters of Public Health (MPH) students who are eligible to enroll for up to 15 elective credits
- Any students taking research-oriented Masters of Science and PhD degree programs in SPPH. Other medical specialties and health disciplines are eligible also such as nursing, health librarianship, bioinformatics (where proposed theses involve social media, eHealth or where students need knowledge in this area)
- Practicing health and human service professionals who want to explore how they can use social media in their professional practice
- Masters of Computer Science students who have 18 credits of course work in the thesis option and whose proposed thesis topic relates to social media in health, medicine or eHealth.

**Minimum Enrolment:**

This course does not have a minimum student enrolment requirement and will be offered as long as there is one (1) confirmed enrolment (including an undergraduate enrolment).

**Course design team:**

Dean Giustini (UBC Biomedical librarian), Dr Kathy Hornby (Acting Head for Life Sciences Libraries), Dr Kendall Ho (Director, eHealth Strategy Office at UBC), Liz Heathcote (Asst Director, eHealth Strategy Office), Francisco Grajales (Graduate student researcher and Vice Chair, International Medical Informatics Social Media Working Group).



## Objectives:

At the end of this course – **SPPH 581H: Social media in health & medicine** -- students will be able to:

1. define social media and its associated terminologies in health and medicine (e.g. medicine 2.0, health 2.0, mHealth, personalized health (*pHealth*), user-generated content, collaboration, business models)
2. discuss social media trends and how tools can be integrated into collaborative practices in health and medicine, population and public health, research, administration, continuing education (including patient education) and *interdisciplinary practices*
3. evaluate major social media tools in health and medicine in a meaningful, relevant way
4. describe benefits, risks and barriers associated with using social media in health and medicine
5. support others learning about and using social media
6. expand professional networks using social media
7. confidently and appropriately apply at least one social tool to each of the following:
  - a. information retrieval
  - b. professional networking
  - c. productivity and information-management
  - d. resource-sharing and aggregation
  - e. clinical trials and telemedicine (e.g., mobile health)
  - f. immersive research and education

## Course format:

**SPPH 581H: Social media in health & medicine** will adopt a flexible, blended approach of online and face-to-face (F2F) learning. Each week there will be a presentation by the instructor or by a guest lecturer, followed by in-class discussion. Student and guest presentations are a major part of the course so that the benefits, risks and constraints of social media can be fully examined. Debate is central to understanding social media especially with respect to the assigned readings. To apply new knowledge, students are asked to engage fully in class. Participation is expected (e.g., online, face to face) and peer assessment is a shared responsibility. Self- and peer- directed learning is important.

## Equipment requirements:

This is a hands-on practical course. Students are expected to work with social media tools. All students must have access to a laptop capable of accessing the UBC wireless network and have access to a computer with Internet access from home. Internet access is available for free on campus to all UBC students. Students will need headphones and microphone functionality (inbuilt or separate) for their computers.

## Assessment:

1) Wiki article	10%
2) Presentation	25%
3) Weekly Reflective (micro) blogging	30%
4) Project	35%



## 1. Wiki eHealth/mobile application article 10%

*Relates to objectives: 1, 2, 3, and 5.*

This assignment provides an opportunity to create, edit or expand on a wiki entry by evaluating a social media tool as used in health and medicine. The entry will be added to [HLWIKI Canada](http://HLWIKI.Canada). Articles should be from between 400 to 500 words with photos, graphics and hyperlinks. See Appendix A for further details.

## 2. Presentation 25% (includes 20% peer review / 5% instructor reviewed) *Relates to objectives: 2, 3, 4, 5, and 7.* Depending on the September 2011 class size, you will be assigned to small groups to present a social media tool used in health & medicine.

The classes or topics are as follows:

Week	Social Media Technologies Topic (see weekly outline for details)	Groups
4	Publication technologies: blogs and wikis in health and medicine	TBA
5	Search technologies in health and medicine	
6	Social networking in health and medicine	
7	Technologies for efficiency & productivity	TBA
8	Technologies for efficiency & productivity	
9	Social multimedia in health and medicine	
10	Global health research and social media	TBA
11	Mobile devices and social media in health and medicine	
12	Social media in virtual public health and medical practices	

Your presentation should demonstrate:

- a) your awareness of what social media technologies are currently available that carry out assigned functions
- b) how to use at least one technology and apply it within a health care context
- c) any strengths, weaknesses (benefits/risks) associated with the technology and
- d) existing, potential and (possible) future implementations.

Your presentations should be about 20 minutes long, 10 minutes extra for class questions for a total of 30 minutes. Please demonstrate familiarity with both the technical and practical aspects of the social media tool. In addition, ensure that you cover relevant issues such as using the tool to improve access to and quality of health care delivery; be aware of alternatives to advise your peers (or employers) as to the strengths and weaknesses of your topic (e.g., Wikipedia is particularly rich in reviews - <http://bit.ly/9bFSR2> ). How you share the preparation and presentation among the members of your group is *up to you*. You will all be expected to answer questions during your presentation; how you handle questions will form part of your mark. Active participation in your classmates' presentations also forms part of your mark. **See Appendix B for details.**

**Peer assessment** - aims to develop knowledge in selecting and presenting content. To align with the philosophy of social media, this assignment is peer-assessed. All students are expected to submit reviews of other presentations; marks awarded will be an average of reviews plus a mark awarded by the instructor. The rubric you will be assessed against/ will be using to assess presentations is in **Appendix B**.



3. **Weekly Reflective (micro)blogging 30%** (20% for (micro)blogging and 10% for participation and exploration of other students' comments/ blogs)

Relates to objectives: 1-6.

Learning how to use a blog requires some awareness of how to negotiate privacy and confidentiality issues - and managing its associated tasks and risks. You can ask for a private blog (or learning space) if needed so that you will not have any public exposure of your blog beyond UBC.

Students will be expected to:

- Establish a blog (online journal) at UBC Blogs: <http://blogs.ubc.ca/> (UBC uses [Wordpress](#))
- In the first two weeks of the course, please share your blog name with your peers by week II
- Blog one 300-450 word post per week (6 in total). Leave one comment on other blogs once a week for six weeks (6 in total)
- Blog your thoughts and reflections as the course progresses
- The instructor will give feedback to you to help you refine your blogging style. Later, the same will happen with Twitter. This will help when selecting posts to include in your portfolio.
- Read the health bloggers/bloggers Code of Ethics. This will form part of class discussions in weeks 1-3.
- A good collection of health-related blogs can be found at <http://www.getbetterhealth.com/>.
- Here are some tips for beginner bloggers ([\(micro\)blog assessment rubric](#) summarizes criteria):
  - Blogging takes many forms. Reflect on your experiences of the course, or its content
  - Observe effective blogging demonstrated by other health and medical professionals. Contributors in the sample link (above) are good examples to follow for blogging and Twitter
  - Posts should be succinct; many readers prefer to read brief entries. However, brevity should not take away from exercising critical thinking
  - Visit your peers' blogs. Contribute your thoughts on their posts through comments or weave their thoughts (suitably acknowledged!) into your blog posting
  - Follow your classmates on Twitter when accounts are set up in Week 7
  - Find five (5) Twitter users outside of class whose work interests you (find *active users*)
  - Interact with your classmates on topics from class
  - Blog posts should not be overly academic in approach. Use the medium to entertain, incite, dispute, inform or critique other writing. Strive to be informative or critical but be polite. Demonstrate you are thinking about questions from class and share your thoughts with your peers. A constructive (critical) voice is often helpful.
- **In week 6**, we start to use Twitter. Set up a [Twitter](#) account and tell your peers what your username is (e.g. @giustini). **In week 7 onwards**, send a tweet to promote your blog posts.
- Your posts will be assessed using a portfolio approach. The assessment rubric is in **Appendix C**, and students can collate examples of their posts/ tweets that demonstrate major marking criteria.
- Students can select 3 examples for their portfolios, but not more than a page of printed text each. The cover page for your Portfolio is in **Appendix C**.



#### 4. Project 35%

*Relates to objectives: 1-7*

Select a specific aspect of using social media in health and medicine. It could be as part of a public health matter, inspired by a media story or case. Your paper should make recommendations for using social media (or argue against its use). The project should be relevant to the health workplace and your strategy appropriate to health organizations. Send an outline of your proposal to your instructor in week 6. Your project should report on options, selecting one and considerations for implementing your strategy.

The suggested structure should be similar to the following:

- Background (issue or problem prompting investigation of social media; literature review)
- Current, potential benefits and risks of social media
- Adoption issues given the use of social media in the organization
- Summary of existing adoption and lessons learned
- Technological options (given context, pros and cons, anticipated benefits)
- Suggested approach (recommendations for proceeding; risks and constraints)
- Conclusion

**See Appendix D for details.**

#### **GRADING POLICY**

##### A Level (80% to 100%)

A+ is from 90% to 100%. It is reserved for exceptional work that greatly exceeds course expectations. In addition, achievement must satisfy all the conditions below.

A is from 85% to 89%. A mark of this order suggests a very high level of performance on all criteria used for evaluation. Contributions deserving an A are distinguished in virtually every aspect. They show that the individual (or group) significantly shows initiative, creativity, insight, and probing analysis where appropriate. Further, the achievement must show careful attention to course requirements as established by the instructor.

A- is from 80% to 84%. It is awarded for generally high quality of performance, no problems of any significance, and fulfillment of all course requirements. However, the achievement does not demonstrate the level of quality that is clearly distinguished relative to that of peers in class and in related courses.

##### B Level (68% to 79%)



This category of achievement is typified by adequate but unexceptional performance when the criteria of assessment are considered. It is distinguished from A level work by problems such as:

1. One or more significant errors in understanding
2. Superficial representation or analysis of key concepts
3. Absence of any special initiatives
4. Lack of coherent organization or explication of ideas

The level of B work is judged in accordance with the severity of the difficulties demonstrated.

B+ is from 76% to 79%.

B is from 72% to 75%.

B- is from 68% to 71%.

C+ is from 64% to 67%

C is from 60% - 63%

F (Fail) is between 0%-59%

The Faculty of Graduate Studies considers 60% as a minimum passing grade for graduate students. See the UBC Calendar for details. Students should check the University Calendar for information on what constitutes “Satisfactory Progress” for masters and doctoral students. In general, a grade of 68% must be maintained to remain in good standing. See the Faculty of Graduate Studies section of Calendar for more information.

#### **IMPORTANT NOTE ON ACADEMIC MISCONDUCT**

Students are expected to know what constitutes plagiarism. Further, it is a form of academic misconduct subject to penalty. Please review the Student Discipline section of the UBC Calendar (available on-line at [www.ubc.ca](http://www.ubc.ca)). Please also visit the UBC Plagiarism Resource Centre for Students (available on-line at [www.library.ubc.ca/home/plagiarism/](http://www.library.ubc.ca/home/plagiarism/))



## Social media glossary

To clarify the language used in this course, a glossary of terminology will be provided. New terms pertaining to social media and terms such as 'eHealth' and 'health informatics' vary widely so students will want to refer to a glossary to understand definitions, use of terms and to familiarize themselves with different uses. For the course glossary, see: [Social media glossary](#)

**Health 2.0** - *is a more patient-centred participatory model of health care emphasizing online (public and/or private) interactions between consumers, health providers and librarians using social media...and an ability to share medical evidence, patient data and opinion to improve health outcomes on a global scale. (See Wikipedia. Health 2.0. [http://en.wikipedia.org/wiki/Health\\_2.0](http://en.wikipedia.org/wiki/Health_2.0))*

**Medicine 2.0** – *is the use of social media in medicine. A new generation of social media can be used to interact online so that health information is continually requested, consumed, and reinterpreted. The medical 2.0 environment features an intricately-connected digital network of medical practitioners, where knowledge exchange is not limited by or controlled by private interests. (See the Medicine 2.0 Congress. <http://www.medicine20congress.com/ocs/index.php/med/med2011>)*

**Social media** – [social media](#) or web 2.0 is the use of digital media, including internet and mobile, for collaborating to create user generated content and form self organizing communities. Typical elements of a social media service include the ability to: 1) create a personal profile 2) “friend” or follow other members to subscribe to their activity streams 3) create content in the form of text, photos, audio, or video and 4) share, tag, rate, comment on or vote on content created by other members. Blogs, forums, wikis, social networking sites, microblogging sites, social bookmarking sites, social voting sites, social review sites and virtual worlds are all example of web 2.0 sites. So are social sites built around photos, audio, videos, presentations, music and games.

**Web 2.0** – *is a term used to refer to a set of social media tools and trends since 2004.*




## Schedule of Weekly Classes & Topics

Weekly lectures and readings outline the core concepts in SPPH 581H. From week 4 or 5, classes will include short presentations by students, followed by discussion. **Please complete any readings before attending class as they will form a part of our a) debate and discussion in class and b) provide you with ideas for your weekly reflective blogging.** Assignments will provide an opportunity for the application of concepts.

Week	Topic / Readings	Assessment-related Activities
1	<b>Introduction to social media in health and medicine</b> <ul style="list-style-type: none"> <li>• Introduction to social media in public health</li> <li>• Syllabus &amp; assignments</li> <li>• Requirements e.g. reading before class</li> <li>• Terminologies, definitions and glossary</li> <li>• Class wiki - <a href="#">HLWIKI Canada</a> 🇨🇦</li> <li>• Discussion &amp; questions</li> </ul> <p><b>Pre-reading (~15 pages)</b>            Change Foundation. Using social media to improve healthcare quality: a guide to current practice and future promise. Part I: Introduction to key issues in the current landscape. June 2011. 🇨🇦  <a href="http://www.changefoundation.ca/docs/socialmediatoolkit.pdf">http://www.changefoundation.ca/docs/socialmediatoolkit.pdf</a>            Eytan Tet al. <a href="#">Social media and the health system</a>. Perm J. 2011;15(1):71-4. 7.            Hardey, M. <a href="#">Public health and Web 2.0</a>. J Royal Society Promotion of Health. 2008;128; 181-189.            Giustini, D. <a href="#">How web 2.0 is changing medicine</a>. BMJ 2006;333:7582: 1283-1284.</p> <p><b>See websites:</b></p> <ul style="list-style-type: none"> <li>• Fuller A. SMiCH — sharing info on Social Media in Canadian Health Care blog. 🇨🇦 <a href="http://www.smich.ca/?cat=16">http://www.smich.ca/?cat=16</a></li> <li>• Mayo Clinic Center for Social Media: <a href="http://socialmedia.mayoclinic.org/">http://socialmedia.mayoclinic.org/</a></li> <li>• Webicina “Public health and web 2.0” - <a href="http://www.webicina.com/public-health/">http://www.webicina.com/public-health/</a></li> </ul>	<p>Select topic for your presentation; register your preference on course website</p> <p>Begin thinking about topic for wiki entry.</p>
2	<b>Social media in health and medicine</b> <ul style="list-style-type: none"> <li>• Social media in health and medicine</li> <li>• Trends circa 2011; barriers and challenges</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Guest lecturer – Dr. Kendall Ho</b></li> </ul>



Week	Topic / Readings	Assessment-related Activities
	<ul style="list-style-type: none"> <li>• Web identities</li> <li>• Legal issues; ethics, privacy and confidentiality</li> <li>• Doctor/ Pharmacist/ Nurse etc 2.0</li> </ul> <p>Class will include case studies and class discussions of this week's readings.</p> <p><b>Readings (~15 pages):</b>  Eysenbach G. <a href="#">Medicine 2.0: social networking, collaboration, participation, apomediation and openness</a>. JMIR. 2008;10(3):e22.  Luo JS. Managing your digital identity. Primary Psychiatry. 2010;17(8):29.  Squazzo JD. Best practices for applying social media in healthcare. Healthcare Executive. 2010; 25(3):34-34-6, 38-9.  Van De Belt TH, Engelen LJ, Berben SA, Schoonhoven L. Definition of health 2.0 and medicine 2.0: a systematic review. J Med Internet Res. 2010 Jun 11;12(2):e18.</p> <p><b>See websites:</b>  Cunningham AM. Medical Education blog: <a href="http://www.wishfulthinkinginmedicaleducation.blogspot.com/">http://www.wishfulthinkinginmedicaleducation.blogspot.com/</a>  <i>I am a GP and Clinical Lecturer in Cardiff University, Wales, UK. I am interested in the use of new technologies to further medical education but not just for the sake of it.</i>  InnovationCell - <a href="http://innovationcell.com/wiki/Main_Page">http://innovationcell.com/wiki/Main_Page</a> 🇨🇦</p>	<p>Assessment-related Activities</p> <p><b>Work on your presentations</b></p> <p><b>Set up your blog</b></p> <p><b>Complete entry for wiki for next week.</b></p>
3	<p><b>Consumer health and social media</b></p> <ul style="list-style-type: none"> <li>• Outline use of social media in consumer and patient health 2.0</li> <li>• Patients and their use of social media</li> <li>• The role of online patient support groups esp. <i>psychosocial support</i></li> <li>• Changes to health workplaces as a result of social media</li> <li>• Implications for managing information for health professions</li> <li>• Discussion of PatientsLikeMe; roles of patients in consumer health</li> </ul> <p>Class discussion of implications of social media in health services and information management.</p> <p><b>Readings:</b>  Frost J. <a href="#">Social uses of personal health information within PatientsLikeMe, an online patient community: What can</a></p>	<ul style="list-style-type: none"> <li>• <b>Guest lecturer - ?</b></li> <li>•</li> <li>• <b>Wiki Article due</b></li> <li>•</li> <li>• <b>Discussion topics:</b>  Who drives the use of social media?  Health professionals or patients? What potential benefits/ challenges do</li> </ul>

Week	Topic / Readings	Assessment-related Activities
	<p><a href="#">happen when patients have access to one another's data</a>. J Med Int Res 2008; 10(3):e15.</p> <p>Hawn C. <a href="#">Take two aspirin and tweet me in the morning: how Twitter, Facebook, and other social media are reshaping healthcare</a>. Health Affairs 2009;28(2):361-368.</p> <p>Swan M. <a href="#">Emerging patient-driven health care models: an examination of health social networks, consumer personalized medicine and quantified self-tracking</a>. Int J Environ Res Public Health 2009, 6,492-525.</p> <p>Sarasohn-Kahn J. The wisdom of patients: health care meets online social media. iHealth Reports. California Healthcare Foundation. 2008. <a href="http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/H/PDF%20HealthCareSocialMedia.pdf">http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/H/PDF%20HealthCareSocialMedia.pdf</a></p> <p><b>See websites:</b></p> <ul style="list-style-type: none"> <li>Friedman J. Personalized medicine: a primer for health care managers. Centre for Health Care Management, University of British Columbia. November 9th, 2011 lecture. Videocast <a href="http://chcm.ubc.ca/2010/12/08/dr-jan-friedman/">http://chcm.ubc.ca/2010/12/08/dr-jan-friedman/</a> </li> <li>MedlinePlus – <a href="http://medlineplus.com">http://medlineplus.com</a></li> <li>PubMed Health - <a href="http://www.ncbi.nlm.nih.gov/pubmedhealth/">http://www.ncbi.nlm.nih.gov/pubmedhealth/</a></li> </ul>	<p>online support groups offer patients and health professionals? Should these groups be led by health professionals? Should health professionals embed themselves online to help? What do you recommend?</p> <p>•</p>
4	<p><b>Publication technologies: blogs, wikis and beyond</b></p> <ul style="list-style-type: none"> <li>Open access</li> <li>Open access publishing – social elements, business models</li> <li>Publication technologies and impact on roles; changing aspects of peer review in health and medicine</li> </ul> <p><b>Presentations on:</b></p> <ul style="list-style-type: none"> <li>Medical/Health Blogs</li> <li>Medical/Health Wikis</li> <li>Semantic Wikis</li> <li>Wikipedia</li> <li>RSS feeds</li> </ul> <p>Question and answer session with students facilitated by instructor. Class discussions.</p> <p><b>Readings:</b></p> <p>Buyl R et al. Medskills, a learning environment for evidence-based medical skills. Methods of Information in</p>	<ul style="list-style-type: none"> <li><b>Guest lecturer – Dr. Anita Palepu</b></li> <li>•</li> <li><b>Discussion topics:</b> Wikis and blogs in health and medicine – the good, the bad, and the future. Do wikis have a future? If so, what principles should be adopted and how should problems be</li> </ul>

Week	Topic / Readings	Assessment-related Activities
	<p>Medicine. 2010 49(3). 6 p.</p> <p>Clauson K et al. <a href="#">Scope, completeness, and accuracy of drug information on Wikipedia</a>. Ann Pharmacother. 2008 Dec; 42(12):1814-21. Epub 2008 Nov 18.</p> <p>Laurent M et al. <a href="#">Seeking health information. Does Wikipedia matter?</a> JAMIA 2009;16(4):471-479.</p> <p><a href="#">Murray S, Giustini D, Loubani T, Choi S, Palepu A. Medical research and social media: Can wikis be used as a publishing platform in medicine. Open Medicine 2009;3(3):121-122.</a></p> <p><b>See websites:</b>            Medical portal on Wikipedia: <a href="http://en.wikipedia.org/wiki/Portal:Medicine">http://en.wikipedia.org/wiki/Portal:Medicine</a>            Open Medicine – <a href="http://openmedicine.ca">http://openmedicine.ca</a>            Webicina “Public health and web 2.0” - <a href="http://www.webicina.com/public-health/">http://www.webicina.com/public-health/</a></p>	<p>resolved? How are problems handled in Wikipedia?            Suggest blogs and wikis of interest to the class by adding them to course website (under RESOURCES).</p>
5	<p><b>Search technologies in health and medicine</b></p> <p><b>Presentations on:</b></p> <ul style="list-style-type: none"> <li>• Search tools - Google, Google Scholar; discussion of metadata, indexing, algorithms, pros/cons of tools</li> <li>• Which engines to use for which purpose</li> <li>• Clinical-specific searches such as MEDgle and Pillbox</li> <li>• Online resources – locating expertise and people</li> </ul> <p>Questions and answer session with students. Class discussions of applications in health service delivery.</p> <p><b>Wiki “tool” article due</b></p> <p><b>Readings:</b>            Hughes B et al. <a href="#">Junior physician’s use of Web 2.0 for information seeking and medical education: A qualitative study</a>. Int J of Med Inf 2009; 78: 645-655.            Metzger MJ. Using web 2.0 technologies to enhance evidence-based medical information. J Health Communication. 2011; 16 (sup1).            Tang et al. <a href="#">Googling for a diagnosis-use of Google as a diagnostic aid: internet based study</a>. BMJ 2006;1143-1145.</p> <p><b>See websites:</b>            Google scholar – <a href="http://scholar.google.com">http://scholar.google.com</a>            Twitter search – <a href="http://search.twitter.com">http://search.twitter.com</a></p>	<ul style="list-style-type: none"> <li>• <b>Guest lecturer</b></li> </ul> <p><b>Discussion topics:</b> How does a ‘digital footprint’ become relevant here? What are the implications for health and medicine (in the workplace)? What might be the link between social media and open access to health information? Is there any correlation? Does medical information need to be open? <i>Why or why not?</i>            Set up Twitter account if you don’t have one.</p>

## 6 Social networking in health and medicine

### Presentations on:

- Microblogging tools e.g. Twitter, Yammer
- Medical Forums e.g. Sermo/Doctors Hangout/Ozmosis
- Professional networking sites, e.g. Linked In
- Social networking sites, e.g. ELGG, Facebook in Medicine/Health

Questions and answer session with students presenting, facilitated by instructor. Class discussions.

### Readings:

Denecke K et al. [How valuable is medical social media data? Content analysis of the medical web](#). Information Sciences. 2009; 179(12):1870-1880.

Farmer A et al. [Social networking sites: a novel portal for communication](#). Postgrad Med J 2009;85:455-459.

Scanfeld D, Scanfeld V. Dissemination of health information through social networks: Twitter and antibiotics. Am J Infection Control. April 2010; 38(3):182-188.

### See website:

#HCSMCA (health care social media Canada) - <http://cyhealthcommunications.wordpress.com/hcsmca-archives/>  


### • Guest lecturer

**Discussion topics:** How is Twitter used? What kinds of interactions can you have on Twitter? What digital footprints do you leave? What positive or negative consequences are there? What potential does it have to enhance / damage your reputation? Send tweet on your (new) Twitter account when your blog is updated.

**Project:** Paragraph proposal on your project due.

## 7 Technologies for efficiency and productivity (1)

### Presentations on:

- Project collaboration tools e.g., Google Docs, Zotero
- File collaboration and Cloud computing (file access)
- Communication and meeting tools e.g. Skype
- Social bookmarking tools e.g. <http://delicious.com> and <http://digg.com>

Question and answer session with students presenting, facilitated by instructor. Class discussions.

### Readings:

### • Guest lecturer – Dr. Carolyn Haythornthwaite

### Discussion topics:

Workplace implications – should nurses/physicians/ pharmacists/ dentists/ use social media? Why or why



Week	Topic / Readings	Assessment-related Activities
	<p>Cain J. Social media in health care: the case for organizational policy and employee education. American Journal of Health-System Pharmacy. 2011;6;68(11):1036-1040.</p> <p>Fordis M. Engagement, communication and dissemination in the era of patient-centered outcomes research. J Health Communication. 2011;16(1):3-9.</p> <p>See website:            AMA Policy on Physicians' Use of Social Media  <a href="http://www.ama-assn.org/ama/pub/meeting/professionalism-social-media.shtml">http://www.ama-assn.org/ama/pub/meeting/professionalism-social-media.shtml</a></p>	<p>not? Cite examples. (tweet your blog update).</p> <p><b>Begin working on your final project.</b></p>
<b>8</b>	<b>Technologies for efficiency and productivity (2)</b>	
	<p><b>Presentations on:</b></p> <ul style="list-style-type: none"> <li>• Enterprise 2.0 solutions e.g., software as a service (SaaS)</li> <li>• Productivity applications e.g. Zoho, Mendeley, Zotero</li> <li>• Calendar tools</li> <li>• Visualization, mind mapping</li> <li>• Decision support tools</li> </ul> <p>Question and answer session with students presenting, facilitated by instructor. Class discussions.</p> <p><b>Readings:</b>            Bacigalupe G. Is there a role for social technologies in collaborative healthcare? Families systems &amp; health. 2011 Mar;29(1):1-14            Wright et al. <a href="#">Creating and sharing clinical decision support with Web 2.0</a>. J Biomed Inform. 2009 Apr;42(2):334-46.</p>	<ul style="list-style-type: none"> <li>• <b>Guest lecturer – Liz Heathcote</b></li> <li>•</li> <li>• <b>Discussion topics:</b>                Implications of social media in delivery of health services (tweet your blog update).                OR (repeat topic)</li> </ul> <p><b>Continue working on your final project.</b></p>
<b>9</b>	<b>Social multimedia in health and medicine</b>	
	<p><b>Presentations on:</b></p> <ul style="list-style-type: none"> <li>• YouTube/ MedTing</li> <li>• Podcasting/ Webcasting</li> <li>• Presentation software / Screencasting</li> </ul> <p>Questions and answer session with students presenting, facilitated by instructor. Class discussions.</p> <p><b>Readings (p):</b></p>	<ul style="list-style-type: none"> <li>• <b>Guest lecturer</b></li> <li>• <b>Discussion topics:</b>                What do multimedia tools offer for better practices in health</li> </ul>



Week	Topic / Readings	Assessment-related Activities
	Snyder L. Online professionalism: social media, social contracts, trust and medicine. J Clin Ethics. 2011;22(2):173-5.	and medicine? (Tweet your blog post).
		<b>Continue working on your final project.</b>
<b>10</b>	<b>Global health research and social media</b>	
	<p><b>Presentations on:</b></p> <ul style="list-style-type: none"> <li>• Using social media to conduct ethical health research</li> <li>• Extending reach of best evidence, knowledge translation &amp; research</li> <li>• Disaster and disease outbreaks e.g, maps &amp; mashups</li> <li>• Clinical trial accrual, disease outbreaks</li> <li>• Platforms for collaboration</li> </ul> <p>Questions and answer session with students presenting, facilitated by instructor. Class discussions.</p> <p><b>Readings</b></p> <p>Allison M. <a href="#">Can web 2.0 reboot clinical trials</a>. Nature Biotechnology 2009 27: 895 – 902.</p> <p>Boulos M et al. <a href="#">Web GIS in practice VI: a demo playlist of geo-mashups for public health neogeographers</a>. Int J of Health Geo 2008;7:38.</p> <p>Frydman, G. <a href="#">Patient-driven research: rich opportunities and real risks</a>. J Participat Med. 2009(Oct);1(1):e12.</p> <p><b>See websites:</b></p> <p>Google Flu - <a href="http://www.google.org/flutrends/">http://www.google.org/flutrends/</a></p> <p>HealthMap mashup - <a href="http://healthmap.org/en/">http://healthmap.org/en/</a></p> <p>US Center for Disease Control Social Media Toolkit <a href="http://www.cdc.gov/healthcommunication/ToolsTemplates/SocialMediaToolkit_BM.pdf">http://www.cdc.gov/healthcommunication/ToolsTemplates/SocialMediaToolkit_BM.pdf</a></p>	<ul style="list-style-type: none"> <li>• <b>Guest lecturer – Dr. Callison</b></li> <li>•</li> <li>• <b>Discussion topics:</b> Potential of social media to improve professional practice (tweet your blog post).</li> </ul> <p><b>Continue working on your final project.</b></p>
<b>11</b>	<b>Mobile devices and social media in health and medicine</b>	
	<p><b>Presentations or Discussions on:</b></p> <ul style="list-style-type: none"> <li>• Mobile health applications in developed world</li> <li>• Sensors and mobile phone integration (aka pHealth)</li> </ul>	<p><b>Guest lecturer</b></p> <p><b>Discussion topics:</b></p>

Week	Topic / Readings	Assessment-related Activities
	<ul style="list-style-type: none"> <li>Optimizing Blogs and other social media for mobile phone access</li> <li>Strengths and weaknesses of mobile phone access</li> <li>Future mobile phones and devices (4G, 5G, iPad2)</li> </ul> <p><b>Readings (30 p):</b>  Ducut, E. <a href="#">Mobile devices in health education: current use and practice</a>. J Comput High Educ 2008;2059-68.  Donner, J. <a href="#">Research approaches to mobile use in the developing world</a>. The Information Society 200; 24:3,140-159.</p> <p><b>See websites:</b>  Massachusetts Institute of Technology. Collaborhythm Redefining the Doctor Patient Relationship.  <a href="http://newmed.media.mit.edu/projects/index.php">http://newmed.media.mit.edu/projects/index.php</a></p>	<ul style="list-style-type: none"> <li>Summarize blog opinions of your peers. Do they extend/ challenge your understanding? Tweet your updates.</li> </ul> <p>•</p> <p><b>Continue working on your final project.</b></p>
<b>12</b>	<b>Social media in virtual health and medicine</b>	
	<p><b>Presentations on:</b></p> <ul style="list-style-type: none"> <li>Second Life 1: Virtual Ability Island, Health Info Island, Ann Myers Medical Centre.</li> <li>Second Life 2: US CDC and American Cancer Society and other relevant medical sites.</li> <li>Questions and answer session. Second Life tour and discussions of applications in health service delivery.</li> </ul> <p><b>Readings (approx 30p):</b>  Bainbridge, W. <a href="#">The scientific research potential of virtual worlds</a>. Science 317, 472 (2007), 472 - 476.  Beard, L., Wilson, K., Morra, D., and Keelan, J. <a href="#">A survey of health-related activities on Second Life</a>. JMIR 2009: 11(2):e17 (approx 12 p).  Lofgren, E., Fefferman, N. <a href="#">The untapped potential of virtual game worlds to shed light on real world epidemics</a>. Lancet Inf Dis 2007: 7: 625-629.</p>	<ul style="list-style-type: none"> <li><b>Discussion topics:</b></li> </ul> <p>Reflections on second life within health services.  Tweet your blog update.</p> <p><b>Continue working on your final project.</b></p>
<b>13</b>	<b>Future of social media</b>	
	<ul style="list-style-type: none"> <li>Semantics; artificial intelligence</li> <li>Interesting case studies of social media in health and medicine</li> <li>Looking to the social web of the future</li> <li></li> <li>Course evaluations and discussion on integrating various social media into professional practice</li> </ul>	<ul style="list-style-type: none"> <li><b>Microblogging portfolio due</b></li> <li></li> <li><b>Final Projects due</b></li> </ul>



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Week	Topic / Readings	Assessment-related Activities
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**Readings:**

Giustini D. [Web 3.0 and medicine](#). BMJ 2007;335: 39426:1273-1274.

Lupiañez-Villanueva F et al. [Opportunities and challenges of Web 2.0 within the health care systems: an empirical exploration](#). Informatics Health and Social Care 2009; 34(3); 117-126.



## Appendix A: Wiki eHealth – mobile application article assessment rubric 10%

Student Name: \_\_\_\_\_ Student Number: \_\_\_\_\_

This assignment provides an opportunity to create, edit or expand a wiki entry by evaluating social media as used in health and medicine. The entry will be added to the HLWIKI used in the class. A good example of an in-depth review can be found at <http://bit.ly/bpvKaW>. Articles should be from between 400 to 500 words with photos, graphics and hyperlinks.

Outcome Assessed	(Fail) 0-1	(C) 2-3	(B- to B+) 3-4	(A- to A+) 5	Grade	Comments
<b>1. Appropriate Use</b> <ul style="list-style-type: none"> <li>- language</li> <li>- information</li> <li>- use of social media</li> <li>- selection of social media tool</li> <li>- ability to use required tools</li> </ul>	Not evident	Some evidence or some issues with appropriateness.	High quality with a few minor issues	Excellent demonstration of appropriate language etc.	/5	
<b>2. Depth</b> <ul style="list-style-type: none"> <li>- applicability and usefulness of review to target audience</li> <li>- information comprehensiveness</li> </ul>	Not evident	Some difficulties with applicability, usefulness or comprehensiveness.	Generally good depth.	Excellent depth and ability to highlight key issues in a short wiki-appropriate review.	/5	

**Total: /10%**

Comments:



## Appendix B: Presentation assessment rubric

Reviewer name: \_\_\_\_\_

Group: \_\_\_\_\_ Date: \_\_\_\_\_ Topic: \_\_\_\_\_

Outcome Assessed	(Fail) 0-2	(C) 3	(B- to B+) 4	(B- to A+) 5	Grade	Comments
<b>1. Presentation Content breadth and depth</b> <ul style="list-style-type: none"> <li>- Completeness</li> <li>- Level of detail</li> <li>- Appropriateness</li> <li>- Relevance</li> <li>- Clarity</li> <li>- Context</li> <li>- Examples</li> </ul> <i>See instructions for presentations over page.(10 marks)</i>	Presentation missed major aspects of topic or addressed irrelevant parts	The presentation was hampered by not enough (or too much) breadth and/or depth. Presentation covered major aspects of topic but was not clear and/or was missing appropriate examples.	The presentation covered content in enough breadth and depth. The level of detail showed sound understanding of content. Some minor issues with level of detail, clarity, relevance, appropriateness or context marred overall content. Examples helped facilitate understanding.	Presentation covered the topic fully and very clearly and the level of detail was appropriate given the audience and timeframe. The context of the tools was well framed. Examples helped facilitate understanding.	<i>(multiply the grade by 2 to end up with a grade out of 10)</i>  <b>/10</b>	
<b>2. Presentation Technique</b> <ul style="list-style-type: none"> <li>- visual supports</li> <li>- explanations</li> <li>- group collaboration and flow between group members</li> <li>- involving the audience (5 marks)</li> </ul>	Difficult to understand, visuals very distracting or unhelpful, no audience involvement.	Presentation visuals and/or explanations were frequently unclear. Some group members not involved; little to no interaction with the audience. Was too long/short for the time given.	Presentation visuals and/or explanations generally clear. Group members all involved in some capacity, some interaction with the audience. Generally adhered to time.	Presentation visuals and/or explanations very clear. Members all involved in some capacity, good flow between speakers and relevant interaction with audience. Adhered to time.	<b>/5</b>	
<b>3. Responses to Questions</b> <ul style="list-style-type: none"> <li>- completeness</li> <li>- relevance (5 marks)</li> </ul>	Didn't answer questions.	Questions were answered to a minimal extent.	Questions were answered with relevant detail.	Questions were answered; excellent understanding of topic.	<b>/5</b>	
<b>TOTAL</b>					<b>/20</b>	
<b>Note: 5 marks are allocated by the instructor based on the frequency and quality of the questions you ask and your active involvement in other presentations.</b>						



### Instructions given for presentations:

Your presentation should demonstrate:

- a) what social media technologies are available that carry out the assigned function
- b) how-to use at least one technology and how the technology functions in a healthcare context;
- c) the strengths, weaknesses and risks of the technology in the healthcare context and
- d) the existing, potential and (possible) future implementations of the tool.

Presentations should be 20 minutes in length. After your presentation, an additional 10 minutes will be allocated for class questions.

You will demonstrate familiarity with both technical and application aspects of using social media technology for improving access, quality, or cost of health service delivery; and, awareness of competitor alternatives in order to advise fellow students (and possible employers) as to strengths and weaknesses of particular tools (Wikipedia is particularly rich in reviews; for example - <http://bit.ly/9bFSR2> ). How you share the preparation and presentation between the group members is up to your group to decide. You will answer questions from your fellow students as part of your tutorial presentation, and how you handle these questions forms part of your final mark. Similarly, your active participation in your classmates' presentations also forms part of your mark.



## Appendix C: (Micro)blogging Assignment (Assessment rubric)

Student Name: \_\_\_\_\_ Student Number: \_\_\_\_\_

Please attach screen-captures or text from your (micro)blogging. Ensure screen captures are large enough to be legible. Include 3 examples per criteria of up to one page each (ie. up to 9 pages total). Leave the rubric below on the front cover for the instructor.

OUTCOME ASSESSED	Fail	C	B- to B	B+ to A	A+
	< 6	6 – 6.5	7 – 7.5	8-9	9-10
<b>1. Overall Use of social media tool</b>  - <b>Frequency of contribution</b> - <b>Ethical and appropriate contributions</b> - <b>Syntax and form</b>  <b>/ 10</b>	No blog exists or too infrequent to meet course requirements.	Established blog. Blog entries are less than one per week and/or generally simple retellings of course content.  Blog entries use incorrect grammar and syntax, making it difficult for others to follow. Some evidence of understanding how to blog/ tweet effectively in the health context.  Writing is confusing or could be clearer given the medium.	Weekly blog entries have been completed. Some evidence of critique but infrequent and/or little depth. No substantial contribution to furthering overall course understanding. Tweets have summarized blog content.  Content ethical and appropriate. Respectful and open manner.  Demonstrated appropriate blogging/ tweeting syntax and form.  Writing is understandable but neither clear nor brief.	Meets level 3, plus weekly blog entries are completed, and some show evidence of a substantial contribution to overall course understanding. Tweets have summarized blog content effectively.  Writing is succinct and clear.	Meets level 4, plus weekly blog entries show evidence of a substantial contribution to advancing the understanding of the course topics.
<b>2. Intellectual Engagement</b>  - <b>Critical Thinking</b> - <b>Application of</b>	No blog exists or too basic for a graduate-level course to be considered. Does not answer the starter questions of the week.	Blog entries demonstrate superficial understanding of issues raised in readings and/or class activities. Answers the blog starter questions of the week.	Blog entries demonstrate good understanding of course content through readings and/or class activities. Entries answer the blog starter questions of the week in sufficient detail to demonstrate some application	Blog entries demonstrate critical engagement with the key issues raised through readings and/or class activities and go into some detail around the starter questions showing an	Blog entries demonstrate critical engagement with not only the important issues raised through readings and/or class activities, but also additional readings and alternative viewpoints. Postings consistently incorporate clear,

**Overall Grade:     /30**

**SPPH 581H: Social Media in Health & Medicine (3 Credits) – September 8<sup>th</sup> 2011**



## Appendix D: Final Project

Select a specific aspect of social media in health and medicine whether as part of a workplace solution, inspired by a story or by using a hypothetical situation. Your paper should recommend using social media (or argue against it). The project should be relevant to health care and reveal a strategy appropriate to health organizations. It should outline recommendations and what to do with existing tools. Report options, select one or more, and outline considerations for implementation. The final project is a maximum of 12 pages including references, double-spaced in 12 point Times New Roman. Send your proposal to your instructor in week 6.

		No, not at all			Yes, in every way		
<b>1. Background</b>	The author clearly outlines issue or problem prompting investigation of social media. Explains in enough detail but concisely the context of organization being studied, key challenges, opportunities and drivers for social media.	1	2	3	4	5	
<b>2. Current State</b>	Current state analysis articulates the existing technology, culture and readiness for social media within organization being studied	1		2		3	
<b>3. Adoption Issues</b>	Concise summary of existing and potential adoption issues given information technology currently implemented in the organization with mitigation strategies. Summary of existing adoption in similar contexts and lessons learned in the health sector and type of organization/ context being explored.	1	2	3	4	5	6 7
<b>4. Options</b>	Technological options (given the context of the health organization, comparing pros and cons and anticipated benefits of the social tools selected). Potential benefits and risks of social media and any specific social media tools are outlined <i>in context</i> . These are supported by the literature and/or expert opinion. The interpretation of the literature/data/opinions was appropriate in this context.	1	2	3	4	5	6 7 8 9 10
<b>5. Suggested Approach</b>	Recommendations to proceed; discuss risks and constraints	1	2	3	4	5	6
<b>6. Conclusion</b>	Summarize recommended path and rationale, and include a call to action.	1	2	3	4		

**Total /35**